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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/516,303	02/29/2000	Christopher Scott Gifford	PII-1100	1819

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EXAMINER

FLANDERS, ANDREW C

ART UNIT	PAPER NUMBER
2644	

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/516,303

Applicant(s)

GIFFORD ET AL.

Examiner

Andrew C Flanders

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 February 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 6-14 and 18-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 February 2000 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yogeshwar (U.S. Patent 6,026,232) in view of Bayston (U.S. Patent 5,023,888).

3. Regarding Claim 1, Yogeshwar discloses a digital audiovisual encoding system (col. 6 lines 36 and 37) that also relates to the encoding of audio, which may be performed using Dolby AC-3 (col. 6 lines 49 – 52) (i.e. a multi-channel signal), the video encoding system allows a section of encoded video to be replaced by another section of encoded video (col. 2 lines 6 and 7) (i.e. removal circuitry that deletes from the original multi-channel program signal a multi window segment of the said multi-channel program signal portion) and in order to remove a section of the encoded video, it is necessary to determine the beginning and the ending points of the encoded video in the digitally encoded bit stream (col. 2 lines 16 – 19) (i.e. the deleted segment beginning with the initial signal window and ending with the subsequent signal window). Yogeshwar does not disclose differencing circuitry that determines, for each program signal portion, a difference value indicative of a difference between a characteristic of an initial signal window in said program signal portion and a subsequent signal window in said program

signal portion such that the difference value meets a predefined criterion. Bayston discloses a first shift register, a second shift register and means for comparing the binary signal levels of corresponding stages of said first and second shift registers (col. 16 lines 36, 39 and 43 – 45) (i.e. differencing circuitry that determines, for each program signal portion, a difference value indicative of a difference between a characteristic of an initial signal window in said program signal portion and a subsequent signal window in said program signal portion such that the difference value meets a predefined criterion). One of ordinary skill in the art at the time of the invention would have been motivated to use Bayston's comparing method with Yogeshwar's digital audiovisual encoding system in order to locate the portion of the signal that is to be removed from Yogeshwar's system (in order to remove a section of the encoded video, it is necessary to determine the beginning and the ending points of the encoded video in the digitally encoded bit stream Yogeshwar col. 2 lines 16 – 19). It would be desirable to easily locate the portion of the signal that is to be removed in order to facilitate the addition of another portion.

5. Regarding Claim 2, in addition to the elements stated above regarding claim 1, Bayston discloses means for generating a specific signal in response to a favorable comparison of the signal levels of the first and second shift registers (col. 16 lines 46 – 49) (i.e. threshold checking circuitry that determines whether the difference value associated with a program signal portion meets a threshold value). Bayston does not disclose the removal circuitry being enabled to delete the multi-window segment if the difference value meets the threshold value). Yogeshwar further discloses in order to

remove a section of the encoded video, it is necessary to determine (Bayston's specific signal) the beginning and the ending points of the encoded video in the digitally encoded bit stream (col. 2 lines 16 – 19) (i.e. the removal circuitry being enabled to delete the multi-window segment if the difference value meets the threshold value).

6. Regarding Claim 15, Bayston discloses a first shift register, a second shift register and means for comparing the binary signal levels of corresponding stages of said first and second shift registers (col. 16 lines 36, 39 and 43 – 45) (i.e. determining, for each program signal portion, a difference value indicative of a difference between a characteristic of an initial signal window in said program signal portion and a subsequent signal window in said program signal portion such that the difference value meets a predefined criteria), means for generating a specific signal in response to a favorable comparison of the signal levels of the first and second shift registers (col. 16 lines 46 – 49) (i.e. determining whether the difference value associated with a program signal portion meets a threshold value). Yogeshwar further discloses in order to remove a section of the encoded video, it is necessary to determine (Bayston's specific signal) the beginning and the ending points of the encoded video in the digitally encoded bit stream (col. 2 lines 16 – 19) (i.e. in the event that the difference value associated with a program signal portion meets the predefined threshold, deleting from the original multi-channel program signal a multi-window segment of said multi-channel program signal portion that begins with the initial signal window and ends with the subsequent signal window).

7. Claims 3 – 5, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yogeshwar (U.S. Patent 6,026,232) in view of Bayston (U.S. Patent 5,023,888) and in further view of Kondo (U.S. Patent 5,627,581).

8. Regarding Claim 3, Yogeshwar discloses a digital audiovisual encoding system (col. 6 lines 36 and 37) that also relates to the encoding of audio, which may be performed using Dolby AC-3 (col. 6 lines 49 – 52) (i.e. for each of two or more of the individual channel signals) and a video encoding system allows a section of encoded video to be replaced by another section of encoded video (col. 2 lines 6 and 7) (i.e. removal circuitry that deletes from the original multi-channel program signal a multi window segment) and in order to remove a section of the encoded video, it is necessary to determine the beginning and the ending points of the encoded video in the digitally encoded bit stream (col. 2 lines 16 – 19) (i.e. the segment beginning with the initial signal window and ending with the subsequent signal window). Yogeshwar does not disclose a differencing circuit that receives said individual channel signal and determines, for each channel signal portion of said individual channel signal, a difference value indicative of a difference between a characteristic of an initial channel signal window in said channel signal portion and a characteristic of a subsequent channel signal window in said channel signal, difference value combining circuit that receives the difference values from each of the differencing circuits and combines said difference values to generate an overall difference value for a corresponding program signal portion of the multi-channel program signal. Bayston discloses a first shift register, a second shift register and means for comparing the binary signal levels of

corresponding stages of said first and second shift registers (col. 16 lines 36, 39 and 43 – 45) (i.e. a differencing circuit that receives said individual channel signal and determines, for each channel signal portion of said individual channel signal, a difference value indicative of a difference between a characteristic of an initial channel signal window in said channel signal portion and a characteristic of a subsequent channel signal window in said channel signal). Bayston does not disclose a difference value combining circuit that receives the difference values from each of the differencing circuits and combines said difference values to generate an overall difference value for a corresponding program signal portion of the multi-channel program signal. Kondo discloses the sum total of difference values calculated at the calculating circuit sent to a comparing circuit (col. 20 lines 3 and 4) (i.e. a difference value combining circuit that receives the difference values from each of the differencing circuits and combines said difference values to generate an overall difference value for a corresponding program signal portion of the multi-channel program signal). One of ordinary skill in the art at the time of the invention would have been motivated to use Kondo's difference summing in conjunction with Yogeshwar's audiovisual encoding system and Bayston's comparing method in order to facilitate the removal of unnecessary program content. It would be desirable to remove unnecessary program content in order to shorten the duration of the program and allow other material to be inserted such as advertising.

9. Regarding Claim 4, in addition to the elements stated above regarding claim 3, Kondo further discloses the sum total of difference values calculated at the calculating circuit sent to a comparing circuit (col. 20 lines 3 and 4). Bayston further discloses

means for generating a specific signal in response to a favorable comparison of the signal levels of the first and second shift registers (col. 16 lines 46 – 49) (i.e. threshold checking circuitry that determines whether the difference value associated with a program signal portion meets a threshold value). Yogeshwar further discloses in order to remove a section of the encoded video, it is necessary to determine (Bayston's specific signal) the beginning and the ending points of the encoded video in the digitally encoded bit stream (col. 2 lines 16 – 19) (i.e. the removal circuitry being enabled to delete the multi-window segment if the difference value meets the threshold value).

10. Regarding Claims 5 and 17, in addition to the elements stated above regarding claim 3, Bayston further discloses a first shift register; means for shifting the received pulse signal into said first shift register at a first predetermined rate; a second shift register; means for shifting said generated pulse signal into said second shift register at a second predetermined rate higher than said first predetermined shift rate; means for comparing the binary signal levels of corresponding stages of said first and second shift registers (col. 16 lines 36 – 42) (i.e. first and second shift registers that each of which receives the associated individual channel signal as an input, the contents of the first shift register being held while the channel signal is shifted through the second shift register for a compare period), clock signals that may be accomplished in any suitable conventional manner by a clock generator (col. 14 lines 6 – 8) (i.e. a shift counter that is incremented at each shift of the channel signal through the second shift register) and means for comparing the binary signal levels of corresponding stages of said first and second shift registers (col. 16 lines 43 – 45) (i.e. and difference computing circuit (108)

that, for each shift of the channel signal through the second shift register during the compare period, determines the difference value between the initial channel signal window of the signal portion of the channel signal held in the first shift register and subsequent channel signal windows of said signal portion being shifted through the second shift register).

11. Regarding Claim 16, Yogeshwar discloses a digital audiovisual encoding system (col. 6 lines 36 and 37) that also relates to the encoding of audio, which may be performed using Dolby AC-3 (col. 6 lines 49 – 52) (i.e. for each of two or more of the individual channel signals). Bayston discloses a first shift register, a second shift register and means for comparing the binary signal levels of corresponding stages of said first and second shift registers (col. 16 lines 36, 39 and 43 – 45) (i.e. a differencing circuit that receives said individual channel signal and determines, for each channel signal portion of said individual channel signal, a difference value indicative of a difference between a characteristic of an initial channel signal window in said channel signal portion and a characteristic of a subsequent channel signal window in said channel signal). . Kondo discloses the sum total of difference values calculated at the calculating circuit sent to a comparing circuit (col. 20 lines 3 and 4) (i.e. combining the difference value from the individual signal channels to generate an overall difference value fro a corresponding program signal portion of the multi-channel program signal). Bayston further discloses means for generating a specific signal in response to a favorable comparison of the signal levels of the first and second shift registers (col. 16 lines 46 – 49) (i.e. determining whether the difference value associated with a program

signal portion meets a threshold value). Yogeshwar further discloses in order to remove a section of the encoded video, it is necessary to determine (Bayston's specific signal) the beginning and the ending points of the encoded video in the digitally encoded bit stream (col. 2 lines 16 – 19) (i.e. in the event that the overall difference value meets the predefined threshold, deleting from the original multi-channel program signal a multi-window segment that begins with the initial channel signal window and end with the subsequent channel signal window).

Allowable Subject Matter

12. Claims 6 – 14 and 18 - 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Regarding Claims 6 and 18, Kroeger (U.S. Patent 6,178,317), discloses a blending circuit having a first weighting factor with the delayed primary audio signal and a second weighting factor with the delayed redundant audio signal (col. 2 lines 26 – 32) (i.e. a weighting circuit that multiplies a value by a weighting factor for the associated channel signal). While Kroeger discloses using a weighting factor to alter a first and second audio signal, the prior art does not disclose, make obvious, nor provide sufficient motivation for using a weighting factor provided by the difference computing circuit that is referenced in the previous claims. Therefore Claim 6 would be allowable if not dependent upon a rejected claim.

14. Claims 7 – 14, and 18 - 24 would be allowable if not dependent on a rejected base claim.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C Flanders whose telephone number is (703) 305-0381. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forrester Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

acf


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